

Benchmark: Top of ROW marker at the S.W. corner of property at address 1648 - Elev. 801.08

Existing Structure: SN 052-00020 built 1954 as SBI Rte 6, Sec 12B-R at Sta 439+12. Three span concrete deck girders on pile bent west abutment, two concrete piers with spread footings on rock, and east abutment on rock. Length bk-bk abuts. is 144', width is 34'-4". Contractor shall remove existing structure in stages and replace it with a PPC I beam bridge on a new pile supported integral west abutment, a new spread footing supported east abutment and new concrete caps on the existing piers. Salvage and reset existing name plate and portions of piers.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

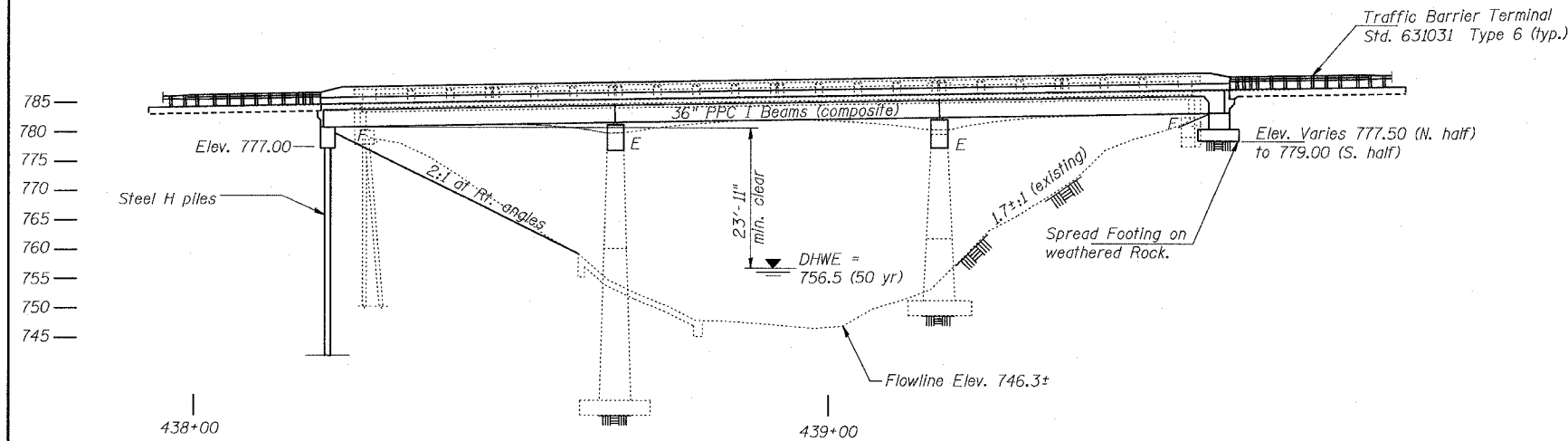
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I.	567	LEE	68	21
F. A. 567	(12)BR-1	LEE	68	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
24 SHEETS

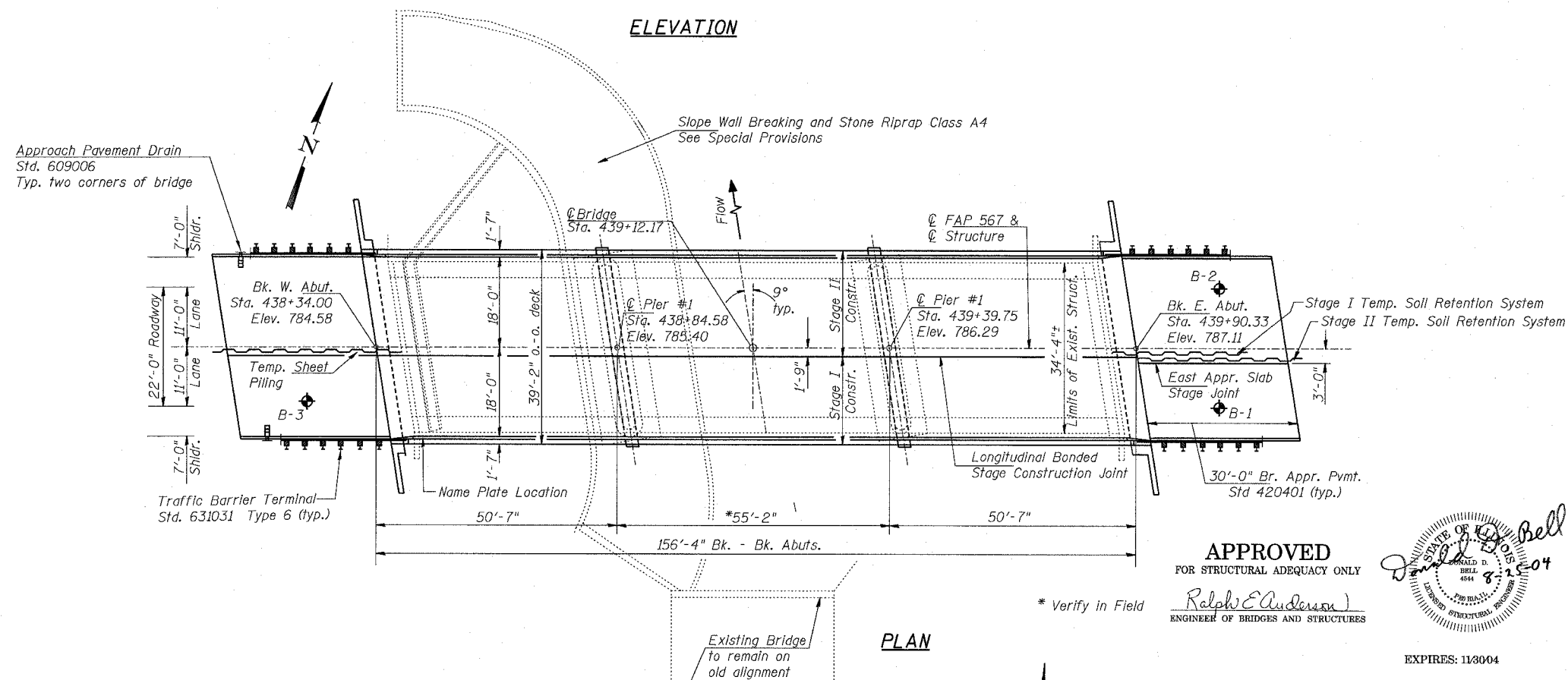
CONTRACT NO. 64425

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
3. The contractor shall drive one test pile in a permanent location at west abutment as directed by the Engineer before ordering the remainder of piles.
4. All construction joints shall be bonded.



ELEVATION



PLAN

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0

LOADING HS 20-44

Allow 50#/sq. ft. for future wearing surface.

WATERWAY INFORMATION

Drainage Area = 24.3 sq. mi.		Low Grade Elev. 776.0 @ Sta. 432+00							
Flood	Freq. Yr.	Q C.F.S.	Opening	Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.	Design	Base
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.
	50	3433	408	408	756.5	0.2	756.7	756.7	
	100	3906	431	431	756.9	0.2	757.1	757.1	
Overtopping									
Max. Calc.	500	5019	483	483	757.8	0.3	758.1	758.0	

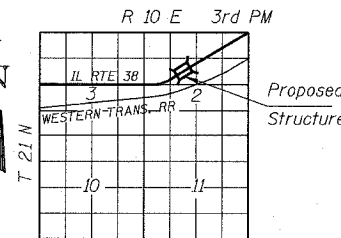
DESIGN STRESSES

Field Units

$f'_c = 3500$ psi
 $f_y = 60,000$ psi (Reinf.)

PRECAST PRESTRESSED UNITS

$f'_c = 6000$ psi
 $f'_ci = 5000$ psi
 $f'_s = 270$ ksi (1/2" ϕ low relaxation strands)
 $f'_sl = 201,960$ ksi (1/2" ϕ low relaxation strands)

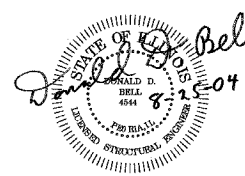


LOCATION SKETCH

DESIGN SPECIFICATIONS

AASHTO Standard Specs -
2002 (17th Edition)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES: 11/30/04

STATION 439+12.17
REBUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 567 SEC. (12)BR-1
LOADING HS20
STR. NO. 052-0020

NAME PLATE

See Std. 515001

Clean and Relocate Existing Name
Plate next to New Name Plate.
Cost included with Name Plates.

PROPOSED PROFILE GRADE
F.A.P. ROUTE 567

(along ϕ Roadway)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1	-	1
Concrete Structures	Cu. Yd.	-	84.1	84.1
Concrete Superstructure	Cu. Yd.	221.8	-	221.8
Reinforcement Bars, Epoxy Coated	Pound	47,890	10,040	57,930
Furnishing Steel Piles HP 12 x 53	Foot	-	180	180
Driving Steel Piles	Foot	-	180	180
Test Pile Steel HP 12 x 53	Each	-	1	1
Furnishing and Erecting Precast				
Prestressed Concrete I Beams, 36"	Foot	926	-	926
Elastomeric Bearing Assembly Type I	Each	-	24	24
Name Plates	Each	1	-	1
Protective Coat	Sq. Yd.	756.3	-	756.3
Structure Excavation	Cu. Yd.	-	279.2	279.2
Rock Excavation for Structures	Cu. Yd.	-	16.8	16.8
Concrete Removal	Cu. Yd.	-	19.9	19.9
Temporary Sheet Piling	Sq. Ft.	-	349.7	349.7
Bridge Deck Grooving	Sq. Yd.	625.3	-	625.3
Bar Splicers	Each	584	53	637
Porous Granular Embankment	Cu. Yd.	-	176.9	176.9
Removal of Existing Sub-Structures	Each	-	2	2
Slope Wall Breaking	Sq. Yd.	-	271	271
Temporary Support System	Each	-	2	2
Temporary Soil Retention System	Sq. Ft.	-	176.8	176.8
Stone Riprap Class A4	Ton	-	60	60

GENERAL PLAN AND ELEVATION
IL RTE 38 OVER FRANKLIN CREEK
F.A.P. RTE 567 SECTION (12)BR-1
LEE COUNTY
STATION 439+12.17
S.N. 052-0020

DESIGNED JFJ	R	RANDOLPH & ASSOCIATES, INC. 111 N. PETERSON PARKWAY, PETERSON, IL 60131 TEL: 312-270-0800 FAX: 312-270-0800 HTTP://WWW.RANDOLPHINC.COM CONSULTING ENGINEERS & LAND SURVEYORS	FILE NUMBER
CHECKED DDB			136.109
DRAWN JB			DATE
CHECKED DDB			July 2004